UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,173	07/17/2006	Hirotaka Kawabata	MAT-8856US	2828

52473 7590 09/16/2008

RATNERPRESTIA
P.O. BOX 980
VALLEY FORGE, PA 19482

EXAMINER	
BOBISH, CHRISTOPHER S	
ART UNIT	PAPER NUMBER
3746	
MAIL DATE	DELIVERY MODE
09/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,173	KAWABATA ET AL.	
	Examiner	Art Unit	
	CHRISTOPHER BOBISH	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☒ Claim(s) *7 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 June 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/17/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner is unsure as to what viscosity the language “VG" refers to when describing an oil grade; applicant is requested to identify what viscosity they mean.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As is construed by the examiner, claim 2 appears to claim that 10-30% of the oil in the compressor boils at 350C, and that 50-70% of the oil boils at 300C. This would mean that more oil boils at the lower temperature, which does not seem to make sense. Please clarify, and identify the specific refrigerating oil if possible.

Claims 7 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 recites a single oil being nearly equal in evaporation temperature. Examiner is confused by this language. If there is only a single oil, then to what is the oil's evaporation temperature nearly equal to? The evaporation temperature of a single fluid must be at least nearly equal to itself. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US Patent No. 7,404,701 B2).

Kwon teaches:

From claims 1- 3, 5, 10 and 12:

a hermetic container, **FIG. 2 (24) C. 4 Lines 11-12**, accommodating a reciprocating compression mechanism, **FIG. 2 (28) C. 4 Lines 15-18**, for compressing an R600a refrigerant, **C. 4 Lines 16-17 and C. 5 Lines 31-46**, and internally storing a mineral oil for lubrication, **FIG. 2 (62) C. 4 Lines 50-55 and C. 5 Lines 48-51.**

Examiner believes that a mineral oil commonly known for use in a device such as the one taught by Kwon would satisfy the requirements of claims 1 and 2, specifically, one having boiling points within the claimed ranges and a viscosity in the appropriate range. Kwon provides motivation for choosing oil with appropriate specifications in C. 1 Lines 54-60 and C. 2 Lines 15-34;

Claims 4, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US Patent No. 7,404,701 B2) as applied to claims 1-3, 5 above, and in further view of Seiki (US Patent No. 5,108,634).

Kwon does not teach that the oil is provided with a phosphorous extreme pressure additive, but Seiki does.

Seiki teaches:

limitations from claim 4, wherein phosphorous extreme pressure additive is added to a refrigerant oil, **C. 3 Lines 49-51 and C. 4 Lines 13-17;**

It would have been obvious to one having ordinary skill in the art of compressors to use a pressure additive as is taught by Seiki in order to increase the effectiveness of the oil in under pressures created by the compressor.

Claims 6, 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US Patent No. 7,404,701 B2) as applied to claims 1-3, 5 above, and in further view of Nagai et al (US Patent No. 6,054,224).

Kwon teaches:

limitations from claim 6, an electric motor**, FIG. 2 (26) C. 4 Lines 14-15**, for driving a compression mechanism **(28).**

Kwon does not teach that the motor uses a low oligomer insulating material, but Nagai does.

Nagai teaches:

limitations from claim 6, an insulating material for an electric motor having low amounts of oligomers, for use in refrigeration systems, specifically compressors, **C. 1 Lines 5-15;**

It would have been obvious to one having ordinary skill in the art of compressors at the time of the invention to use a low oligomer type insulation on a motor as taught by Nagai in order to allow more efficient use of environmentally friendly refrigerants, C. 1 Lines 10-15 and Lines 42-45.

Kwon and Nagai teach and disclose of the compressor in claims 1 and 6.

Kwon further teaches:

limitations from claim 7, wherein the oil is formed from a single oil, nearly equal in evaporation temperature, **Kwon teaches in C. 5 Lines 48-51 that a selected mineral oil is a single paraffin based oil, examiner believes that a single component oil will have a consistent evaporation temperature throughout;**

Claims 8, 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US Patent No. 7,404,701 B2) in view of Nagai et al (US Patent No. 6,054,224) as applied to claims 1, 2, 6 and 13 above, and in further view of Hannibal (US Patent No. 4,252,506).

Kwon and Nagai teach and disclose of the compressor in claims 1 and 6.

Kwon teaches an electric motor **(26)** with windings**, FIG. 2 (42) C. 4 Lines 30-31.**

Neither Kwon nor Nagai explicitly teach a distributed winding, but Hannibal does.

Hannibal teaches:

limitations from claim 8, an electric motor**, FIG. 3 (16) C. 3 Line 22,** in a compressor**, FIG. 3 (10) C. 3 Lines 20-21,** wherein the motor is a distributed winding motor, **C. 5 Lines 8-11;**

It would have been obvious to one having ordinary skill in the art of compressors at the time of the invention substitute the winding structure taught by Hannibal and as is known in the art into the compressor motor of Kwon in order to meet the driving demands of the compressor and system.

Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US Patent No. 7,404,701 B2) in view of Nagai et al (US Patent No. 6,054,224) as applied to claims 1, 2, 6 and 13 above, and in further view of Kojima et al (US PGPUB No. 2004/0191094 A1).

Kwon and Nagai teach and disclose of the compressor in claims 1 and 6.

Kwon teaches an electric motor **(26)** with windings**, FIG. 2 (42) C. 4 Lines 30-31.**

Neither Kwon nor Nagai explicitly teach a concentrated winding, but Kojima does.

Kojima teaches:

limitations from claim 8, an electric motor**, FIG. 1 (103) paragraph [0031],** in a refrigerant compressor, **FIG. 1 paragraph [0028],** wherein the motor is a concentrated winding motor, **Page 2 paragraph [0031];**

It would have been obvious to one having ordinary skill in the art of compressors at the time of the invention substitute the winding structure taught by Kojima and as is known in the art into the compressor motor of Kwon in order to meet the driving demands of the compressor and system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BOBISH whose telephone number is (571)270-5289. The examiner can normally be reached on Monday through Thursday, 7:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571)272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Bobish/
Examiner, Art Unit 3746

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746

/C. B./
Examiner, Art Unit 3746